## SUNY Chancellor Robert King Visits Brookhaven

**March 27, 2003**

On Thursday, March 27, Robert King, Chancellor of the State University of New York (SUNY), visited BNL for an introduction to the Lab and its programs. As SUNY Chancellor, King oversees one of the nation's largest university systems, with about 500,000 students and an annual state budget of about $7 billion. After a welcome lunch with Interim BNL Director Peter Paul, BNL Director-designate Praveen Chaudhari, Manager of the DOE Brookhaven Area Office Michael Holland, and several Associate Lab Directors and Department Chairs, the Chancellor toured the Lab.

The first stop focused on atmospheric chemistry research in the Environmental Sciences (ES) Department chaired by Creighton Wirick. ES scientist Peter Daum of the Atmospheric Sciences Division talked about BNL's laboratory, field, and modeling program that has contributed to understanding the mechanism of photochemical smog formation. Judy Weinstein-Lloyd, a professor at SUNY Old Westbury who has a long-standing collaboration with BNL scientists, spoke of her program to develop new instrumentation for measuring atmospheric oxidants.

Ralph James, Associate Laboratory Director for Energy, Environment, & National Security, then described BNL homeland security initiatives, such as research and development on nuclear, chemical, biological, and explosive detectors. James showed King actual prototypes of BNL hardware that could detect small quantities of nuclear radiation from great distances.

King's second stop was at the Relativistic Heavy Ion Collider (RHIC), where Associate Laboratory Director Thomas Kirk, together with Collider-Accelerator (C-A) Department Chair Derek Lowenstein and Physics Department Chair Samuel Aronson described the program of RHIC and its four detectors. At one of these detectors, PHENIX, Ed O'Brien, PHENIX operations manager, and PHENIX analysis coordinator Thomas Hemmick, a physics professor at Stony Brook University outlined the scientific goals of the experiment and gave King a brief idea of how PHENIX collects RHIC data.

Next, King visited the NSLS, one of the Northeast's and New York State's most important scientific facilities. Interim Associate Laboratory Director for Basic Energy Science Doon Gibbs and NSLS Chair Steven Dierker explained a proposed upgrade that will dramatically improve the capabilities available to the NSLS's approximately 2,500 researchers from universities, scientific institutions, and industry.

Listening as Peter Daum (right) of the Environmental Sciences Department explains BNL research in atmospheric chemistry are: (from left) Ralph James, Associate Laboratory Director for Energy, Environment, & National Security; Creighton Wirick, Environmental Sciences Department Chair; Praveen Chaudhari, then designate BNL Director; Robert King, State University of New York (SUNY) Chancellor; Judy Weinstein-Lloyd, SUNY Professor at Old Westbury; Brian Giebel, SUNY Old Westbury; and Jun Zheng, Stony Brook University.

As King learned, researchers from SUNY at Albany, Buffalo, Plattsburgh, and Stony Brook used 20 NSLS beamlines during fiscal year 2002 for studies of, for example, materials characterization, materials in high magnetic fields and under extreme conditions, polymers, and biological and environmental systems. Plans for the new BNL Center for Functional Nanomaterials were also discussed.

The SUNY Chancellor moved on to BNL's NeuroImaging Center, where Linda Chang, Medical Department Chair, and Joanna Fowler, who heads the NeuroImaging Center, described some of the Lab's pioneering neuroimaging research on the brain chemistry of addiction; diseases such as Parkinson's and Alzheimer's; and aging. King also learned about the center's recent research on imaging awake animals, which has veterinary support from SUNY's Downstate Medical Center in Brooklyn.

King concluded his visit with discussions at the Director's Office, during which he stated how impressed he was with the programs of the Laboratory and its broad scope of research. He

pointed to a number of educational opportunities as good steps to increase the connections between the Lab and New York State. Interim Director Paul, who expressed his appreciation to the Chancellor for the visit to BNL, commented, "Chancellor King clearly recognized the importance of BNL for the economy of New York State and the education of the education of the State's students."

— Liz Seubert

## RapiData Crystallography Course

**April 6-11, 2003**

Once again last spring, budding crystallographers from around the world gathered at BNL. They were attending RapiData 2003, a week-long course run by BNL's Biology and NSLS Departments. This course introduces students to the best people, newest equipment, and latest techniques in the field of macromolecular x-ray crystallography.

Emphasizing "Rapid Data Collection and Structure Solving at the NSLS," this "Practical Course in Macromolecular X-Ray Diffraction Measurement" ran from April 6 to 11. It consisted of two days of lectures and tutorials taught by scientists from BNL, industry, academia, and other national labs, followed by data collection and analysis at the NSLS. The same instructors and others act as hands-on advisors for a marathon sixty-hour data-collection session to close out the week. Half of this year's 48 students came as observers, while the other half arrived with specimens to analyze. Seven of the students left with solved structures, which will likely result in publications.

The course, which helps to train the next generation of NSLS users, is mostly organized by Bob Sweet and Denise Kranz of Biology, but they emphasize that its success absolutely depends on enthusiastic help from most of the twenty members of the PXRR (the Biology and NSLS Macromolecular Crystallography Research Resource), plus a dozen or so outside teachers.

Major funding for the course was from the National Institutes of Health through the National Center for Research Resources, and DOE's Office of Biological & Environmental Research, with support from the NSLS, and some interested equipment vendors and drug companies.

— Karen McNulty Walsh

## Representatives of DOE Light Sources Meet with Elected Officials in Washington, D.C.

**April 7-8, 2003**

For the third consecutive year, a delegation of scientists representing the four U.S. Department of Energy (DOE) synchrotron light sources organized a successful lobbying trip to Washington, D.C. on April 7 and 8, 2003.

The visit was organized and coordinated by Leemor Joshua-Tor, the chair of the NSLS Users' Executive Committee (UEC). The delegation was comprised primarily of the chair and vice-chair of the UECs of the Advanced Light Source at Lawrence Berkeley National Laboratory (CA), the Advanced Photon Source at Argonne National Laboratory (IL), the NSLS, and the Stanford Synchrotron Radiation Laboratory at Stanford University (CA). Accompanying the delegation was Pat Fulton, Science Lobbyist for Stanford University. The NSLS scientists in the delegation were Tony Lanzirotti, UEC vice-chair, and Simon Bare, UEC lobbying coordinator.

**A group of RapiData students seen with instructors Annie Héroux (standing, left), a BNL Biology Department structural biology scientist who works at NSLS beamline X26C, and Frank von Delft (foreground), Scripps Research Institute.**

"The goal of these visits is to increase the visibility of the synchrotrons and the Department of Energy's Office of Science who funds them," Joshua-Tor says. "The Office of Science budget has remained essentially flat in recent years, forcing light source funding to remain flat as well, although the number of light source users nearly doubled."

"This office is by far the largest funding agency for the physical sciences in the U.S.," Bare says, " but its funding is buried within bills approved by the Senate Energy and Water Appropriations Subcommittee of the Senate Appropriations Committee and the House on Energy and Water Development Subcommittee of the House Appropriations Committee."

DOE's budget for fiscal year 2003 is $21.9 billion, of which only 15% ($3.3 billion) funds the Office of Science, and only one-third of this amount goes to Basic Energy Sciences, which is the primary funding agency for light source operations. "This amount does not reflect the real needs of the scientists working at the light sources," Bare says, "because the number of users keeps growing, but not the funding, so an infusion of operating funds is urgently required."

On the first day of the visit, the delegation met with Patricia Dehmer, Associate Director of Science for the Office of Basic Energy Sciences, which is one of six offices managed by the Office of Science; Joel Parriott, Budget Examiner from the Federal Office of Management and Budget; John Marburger, Director of the White House Office of Science and Technology Policy (OSTP) and science advisor to President George W. Bush; Kathie Olsen, Associate Director for Science at the OSTP; Michael Holland, Senior Policy Analyst at the OSTP; and Clay Sell and Drew Willison, both Staff members from the Senate Energy & Water Subcommittee of the Senate Appropriations Committee.

Marburger, who welcomed the delegation in his office in the morning of the first day, expressed his strong support for the four light sources, stating that he was holding them in high regard and considered them as the most productive user facilities by the scientific research community worldwide.

On the second day of the visit, the delegation met with senior staffers from the Senate Committee on Energy and Natural Resources, the Energy Subcommittee of House Science Committee, and the Energy and Water Development Subcommittee of the House Appropriations Committee.

The highlight of the visit was a meeting between NSLS user Martin Caffrey, professor of chemistry at Ohio State University in Columbus, and Representative David Hobson (R-OH), the new Chair of the House Energy and Water Development Subcommittee of the Appropriations Committee. Caffrey was accompanied by Simon Bare. The discussion focused on the wide variety of scientists working at the light sources, most of whom are not employees of the national laboratories housing the light sources, but come from universities, other federal agencies, and industry.

At the end of the second day, Bare and Lanzirotti visited with Sean Sweeney, a staffer in the office of Senator Hillary Rodham Clinton (D-NY) and expressed their interest in increasing funding for the DOE's Office of Science. The two scientists also reported to Sweeney that a proposal has been made to the Basic Energy Sciences Advisory Committee (BESAC) to build a new synchrotron at Brookhaven Lab, NSLS-II, which will provide a brighter beam for greatly improved scientific data and many new scientific discoveries.

The members of the delegation were generally satisfied with their visit. "We came away from our visit feeling positive and with many good suggestions on how to expand our efforts," Lanzirotti says. "We also noticed signs of support for increased funding for the Office of Science. For example, the bill introduced onto the floor of the House (H.R. 6) on April 10 provides for budget increases of approximately 15, 10, 15, and 15 percent over the next four years."
— Leemor Joshua-Tor and Simon Bare